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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/629,033	07/28/2003	Robert N. Mayo	200208396	7375

22879 7590 04/01/2009

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EXAMINER

WAI, ERIC CHARLES

ART UNIT	PAPER NUMBER
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2195

NOTIFICATION DATE	DELIVERY MODE
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04/01/2009

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/629,033	Applicant(s) MAYO ET AL.	
	Examiner ERIC C. WAI	Art Unit 2195	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 February 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-18 are presented for examination.

Continued Examination Under 37 CFR 1.114

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 02/03/2009 has been entered.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-9 are rejected under 35 U.S.C. 101 because they are directed to non-statutory subject matter.

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Claims 1-9 recite “an information system,” comprising “a set of access subsystems”, “a power manager”, and “a transaction analyzer”. The claimed elements can be reasonably interpreted as software. Thus, the claims are software per se and do not fall within any of the four enumerated categories of patentable subject matter in section 101.

Claims 10-18 are rejected under 35 U.S.C. 101 because they are directed to non-statutory subject matter.

Claims 10-18 recite “method for priority analysis of access transactions in an information system” (see preamble, Claim 10). However, the claims do not require a particular machine or apparatus, nor do these claims transform any article into a different state or thing. According, claims 10-18 are not directed to statutory subject matter under 35 U.S.C. § 101.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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4. Claims 1, 4-7, 10, and 13-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jervis et al. (US Pat No. 6,988,139) in view of Chase et al. (US Pat No. 6,785,794), further in view of Kim (US PG Pub No. US 2003/0149904 A1).

5. Regarding claim 1, Jervis teaches an information system, comprising:

a set of computing devices for processing tasks, wherein each computing device is ranked according to its corresponding capability (col 1 lines 18-21, col 2 lines 51-56, col 3 lines 11-18);

transaction analyzer that determines a priority metric for an incoming task and that transfers the incoming task to one of the computing devices by matching the priority metric to the capability (col 2 lines 60-67 and col 3 lines 11-18).

6. Jervis differs from the claimed invention by not teaching a set of access subsystems each for use in accessing a persistent store in the information system. Chase teaches a set of access subsystems each for use in accessing a persistent store in the information system (col 5 lines 56-59).

7. It would have been obvious to one of ordinary skill in the art to modify Jervis to teach a set of access subsystems each for use in accessing a persistent store as taught by Chase. Jervis is directed to a generic task processing computer system. One would be motivated by the desire to extend the breadth of Jervis' invention to persistent stores in an information system.

8. Jervis also differs from the claimed for not teaching a power manager coupled to the access subsystems, the power manager selectively changes the power state of

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each access subsystem based on a power management rank assigned to each access subsystem. Kim teaches the use of assigning priority to individual modules and switching the power states of each modules wherein higher priority modules are guaranteed for continuous operation ([0017]).

9. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Jervis and Chase to teach ranking the access subsystem using a power management rank. One would be motivated by the desire to effectively manage power as taught by Kim ([0017]).

10. Regarding claim 4, Jervis, Chase, and Kim do not teach that the transaction analyzer determines the priority metric by determining a dollar cost associated with the incoming access transaction.

11. However, it would have been obvious to one of ordinary skill in the art at the time of the invention to determine the priority metric by determining a dollar cost. One would be motivated by the desire to maximize greatest return on investment by giving priority to requests that return the most profit.

12. Regarding claim 5, Jervis, Chase, and Kim do not teach that the transaction analyzer determines the priority metric by determining a computational complexity associated with performing the incoming access transaction.

13. However, it would have been obvious to one of ordinary skill in the art at the time of the invention to determine the priority metric by determining a computational

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complexity. It is well known in the art that computational complexity requires more computational processing power. Therefore, one would be motivated by the desire to rank the request based on the need for resources.

14. Regarding claims 6-7, Jervis, Chase, and Kim do not teach that the computational complexity is indicated by a number of database tables in the persistent store that are referenced by the incoming access transaction or that the computational complexity is indicated by a number of field matches specified in the incoming access transaction to database tables in the persistent store.

15. However, it is well known in the art that accessing a greater number of database tables of fields is a more computationally complex process.

16. Regarding claims 10, and 13-16, they are the method claims of claims 1, and 4-7 above. Therefore, they are rejected for the same reasons as claims 1, and 4-7 above.

17. Claims 2-3 and 11-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jervis et al. (US Pat No. 6,988,139), Chase et al. (US Pat No. 6,785,794), and Kim (US PG Pub No. US 2003/0149904 A1), further in view of Yu (US Pat No. 6,807,572).

18. Regarding claims 2-3, Jervis, Chase, and Kim do not teach that the transaction analyzer determines the priority metric by determining a frequency of occurrence for the

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incoming access transaction (claim 2) or a frequency of access of a database table referenced in the incoming access transaction (claim 3).

19. Yu teaches that depending on the frequencies of requests, and the load of other, more frequent queries, the application server will choose to give priority to other queries first (col 2 lines 50-54).

20. It would have been obvious to one of ordinary skill in the art at the time of the invention to include determining the priority metric based on a frequency. One would be motivated by the desire to increase flexibility and scalability to serve potentially a large number of clients during run time (col 2 lines 54-56).

21. Regarding claims 11-12, they are the method claims of claims 2-3 above. Therefore, they are rejected for the same reasons as claims 2-3 above.

22. Claims 8-9 and 17-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jervis et al. (US Pat No. 6,988,139), Chase et al. (US Pat No. 6,785,794), and Kim (US PG Pub No. US 2003/0149904 A1), further in view of Stefanescu et al. (US Pub No. US 2003/0013951 A1 hereinafter Stefanescu).

23. Regarding claims 8-9, Jervis, Chase, and Kim do not teach that the transaction analyzer determines the priority metric in response to a set of query constraints contained in the incoming access transaction (claim 8) or that the priority metric is

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based on a size of a database table in the persistent store to which the query constraints are to be applied (claim 9).

Stefanescu teaches prioritizing queues based on the supplied constraints to organize the data in a system with finite resources ([0107] lines 5-12). By interleaving the requests, processing can occur as soon as possible on systems where the amount of data to be transmitted is limited.

It would have been obvious to one of ordinary skill in the art at the time of the invention to include determining a priority metric in response to the size of the database table. One would be motivated by the desire to allow processing to begin as soon as possible in order to meet SLA requirements ([0107] lines 10-16).

24. Regarding claims 17-18, they are the method claims of claims 8-9 above. Therefore, they are rejected for the same reasons as claims 8-9 above.

Response to Arguments

25. Applicant's arguments with respect to claims 1-18 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

26. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric C. Wai whose telephone number is 571-270-1012. The examiner can normally be reached on Mon-Thurs, 8am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng - Ai An can be reached on 571-272-3756. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/VAN H NGUYEN/
Primary Examiner, Art Unit 2194

/Eric C Wai/
Examiner, Art Unit 2195